AMENDMENTS TO THE CLAIMS

Claims 1-82. (Canceled)

83. (New) An electrolytic processing apparatus comprising:

a substrate holder for holding a substrate such that a surface, to be processed, of the substrate faces upwardly;

a first electrode for being brought into contact with the substrate so as to supply current to the surface of the substrate;

a second electrode disposed above said substrate holder such that when the substrate is held by said substrate holder said second electrode is substantially parallel to the surface of the substrate;

a resistance structure between said substrate holder and said second electrode such that when the substrate is held by said substrate holder said resistance structure is between the substrate and said second electrode;

an electrolytic solution introducing portion for introducing an electrolytic solution, from laterally of said resistance structure, into a region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder, so as to allow the electrolytic solution to flow along the surface of the substrate; and

a power source for applying a voltage between said first electrode and said second electrode,

wherein said resistance structure is a high resistance structure by virtue of being constituted to have lower electric conductivity than that of the electrolytic solution by causing the electrolytic solution to enter into said resistance structure.

84. (New) The electrolytic processing apparatus according to claim 83, further comprising:

an electrode holder which holds said second electrode and said resistance structure,

wherein said electrolytic solution introducing portion extends through said electrode holder.

85. (New) The electrolytic processing apparatus according to claim 83, further comprising:

an electrode holder which holds said second electrode and said resistance structure,

wherein said electrolytic solution introducing portion is disposed laterally of said electrode holder.

86. (New) The electrolytic processing apparatus according to claim 83, further comprising:

an air ejecting portion for ejecting air to the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder.

87. (New) The electrolytic processing apparatus according to claim 83, further comprising:

an air drawing portion for drawing air from the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder.

88. (New) The electrolytic processing apparatus according to claim 83, wherein

said resistance structure is vertically movable and tiltable, and is constructed and arranged such that from a state in which the substrate is held by said substrate holder and said resistance structure is tilted relative to said substrate holder, with the electrolytic solution being introduced by said electrolytic solution introducing portion into the region, across which the substrate and said resistance structure face each other, from a side where the substrate and said resistance structure are closest to each other, said resistance structure is to be lowered to a horizontal state.

89. (New) The electrolytic processing apparatus according to claim 83, wherein said resistance structure is horizontally held and vertically movable, and is constructed and arranged such that from a state in which the substrate is held by said substrate holder, with the electrolytic solution being introduced by said electrolytic solution introducing portion into the region across which the substrate and said resistance structure face each other, said resistance structure is to be lowered.

90. (New) The electrolytic processing apparatus according to claim 83, further comprising:

a deaerating device for removing a dissolved gas from the electrolytic solution which is to be introduced, from said electrolytic solution introducing portion, into the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder.

91. (New) The electrolytic processing apparatus according to claim 83, wherein said electrolytic solution introducing portion has a distal end shaped as one of a nozzle and a slit.

92. (New) The electrolytic processing apparatus according to claim 83, further comprising:

one of a check valve and a porous member in said electrolytic solution introducing portion.

93. (New) The electrolytic processing apparatus according to claim 83, wherein said electrolytic solution introducing portion is in a position along a circumferential direction of a peripheral edge of the substrate when held by said substrate holder.

94. (New) The electrolytic processing apparatus according to claim 83, further comprising:

another electrolytic solution introducing portion for introducing the electrolytic solution, from laterally of said resistance structure, into the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder,

wherein said electrolytic solution introducing portion and said another electrolytic solution introducing portion are in positions facing one another other across the substrate when held by said substrate holder.

95. (New) The electrolytic processing apparatus according to claim 83, wherein said substrate holder is rotatable, and

said electrolytic solution introducing portion is for introducing the electrolytic solution, from laterally of said resistance structure, into the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder, by introducing the electrolytic solution while said substrate holder is rotated together with the substrate.

96. (New) The electrolytic processing apparatus according to claim 83, further comprising:

another electrolytic solution introducing portion for introducing the electrolytic solution, from laterally of said resistance structure, into the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder;

a first liquid delivery pump, connected to said electrolytic solution introducing portion, for delivering the electrolytic solution from said electrolytic solution introducing portion at spaced time intervals; and

a second liquid delivery pump, connected to said another electrolytic solution introducing portion, for delivering the electrolytic solution from said another electrolytic solution introducing portion at spaced time intervals.

97. (New) The electrolytic processing apparatus according to claim 83, wherein said electrolytic solution introducing portion is for introducing the electrolytic solution, from laterally of said resistance structure, into the region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder, by introducing the electrolytic solution at a linear speed ranging from 0.1 to 10 m/sec. for at most 5 seconds.

98. (New) An electrolytic processing apparatus comprising:

a substrate holder for holding a substrate such that a surface, to be processed, of the substrate faces upwardly;

a first electrode for being brought into contact with the substrate so as to supply current to the surface of the substrate;

a second electrode disposed above said substrate holder such that when the substrate is held by said substrate holder said second electrode is substantially parallel to the surface of the substrate;

a resistance structure between said substrate holder and said second electrode such that when the substrate is held by said substrate holder said resistance structure is between the substrate and said second electrode;

an electrolytic solution circulating system including

(i) an electrolytic solution introducing portion for introducing an electrolytic solution, from laterally of said resistance structure, into a region across which the substrate and said resistance structure face each other when the substrate is held by said substrate holder, so as to allow the electrolytic solution to flow along the surface of the substrate, and

(ii) an electrolytic solution drawing portion for drawing the electrolytic solution, introduced into the region from laterally of said resistance structure, for circulation of the electrolytic solution; and

a power source for applying a voltage between said first electrode and said second electrode,

wherein said resistance structure is a high resistance structure by virtue of being constituted to have lower electric conductivity than that of the electrolytic solution by causing the electrolytic solution to enter into said resistance structure.

99. (New) The electrolytic processing apparatus according to claim 98, further comprising:

an electrode holder which holds said second electrode and said resistance structure,

wherein at least one of said electrolytic solution introducing portion and said electrolytic solution drawing portion extends through said electrode holder.

100. (New) The electrolytic processing apparatus according to claim 98, further comprising:

an electrode holder which holds said second electrode and said resistance structure,

wherein at least one of said electrolytic solution introducing portion and said electrolytic solution drawing portion is disposed laterally of said electrode holder.

101. (New) The electrolytic processing apparatus according to claim 98, wherein

said electrolytic solution circulating system includes a deaerating device for removing a dissolved gas from electrolytic solution in circulation.

102. (New) The electrolytic processing apparatus according to claim 98, wherein

at least one of said electrolytic solution introducing portion and said electrolytic solution drawing portion has a distal end shaped as one of a nozzle and a slit.

103. (New) The electrolytic processing apparatus according to claim 98, further comprising:

one of a check valve and a porous member in said electrolytic solution introducing portion.

104. (New) The electrolytic processing apparatus according to claim 98, wherein at least one of said electrolytic solution introducing portion and said electrolytic solution drawing portion is in a position along a circumferential direction of a peripheral edge of the substrate when held by said substrate holder.

105. (New) The electrolytic processing apparatus according to claim 98, wherein said electrolytic solution introducing portion and said electrolytic solution drawing portion are in positions facing each other across the substrate when held by said substrate holder.